

# PATENT ABSTRACTS OF JAPAN

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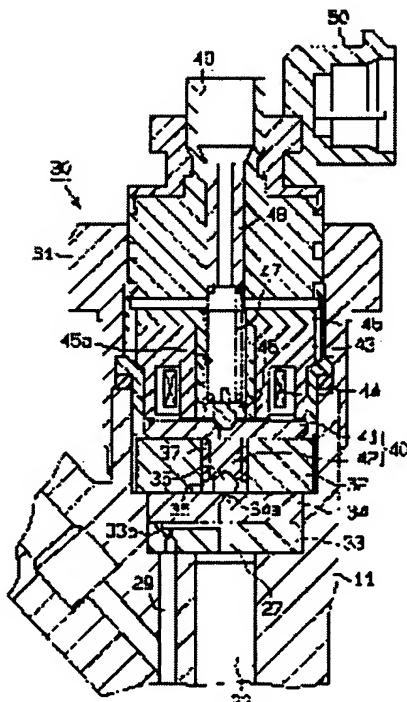
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## (54) SOLENOID VALVE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To simplify part constitution by imparting a plurality of functions to one member.

**SOLUTION:** This solenoid valve 30 is fixed to an injector body 11 by a retaining nut 31. A movable member 40 oppositely reciprocating to a core 43 is housed in a valve cylinder 32 of the solenoid valve 30. The movable member 40 is composed of an armature part 41 and a sliding shaft part 42. A spherical member 36 for constituting a separate valve member is arranged on the tip (the lower end of a drawing) of the sliding shaft part 42. The movable member 40 is composed of a soft magnetic material, and a thin hardened layer by surface treatment or heat treatment is arranged on the surface. When carrying an electric current to a coil 44, the armature part 41 is attracted to the core 43, the movable member 40 moves, and the spherical member 36 moves to a valve opening position according to the movement.



## LEGAL STATUS

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